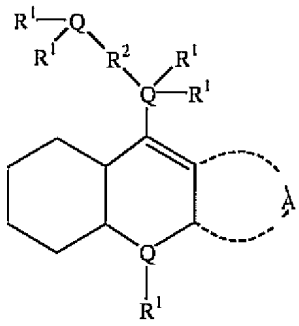
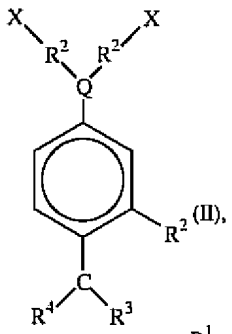
AMENDMENTS TO THE CLAIMS

1-2. (Cancelled).

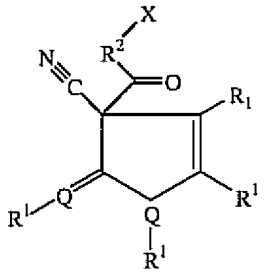
3. (Currently Amended) ~~The kit of claim 1~~ A kit for activating gene transfer, said kit comprising a gene transfer activating compound, packaged in a suitable container together with instructions for use to activate gene transfer wherein said gene transfer compound is selected from the group consisting of:



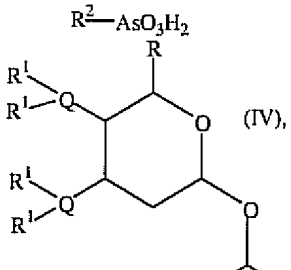
(I),



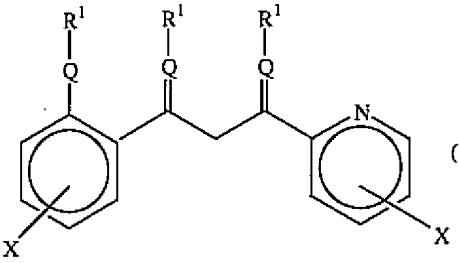
(II),



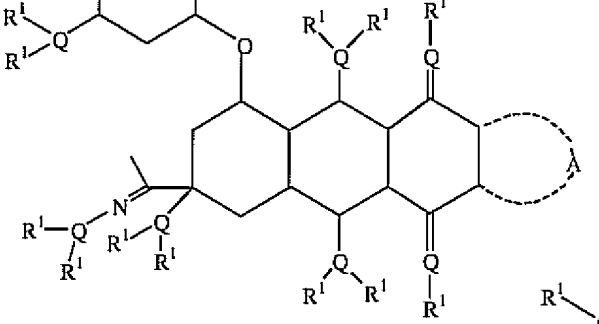
(III),



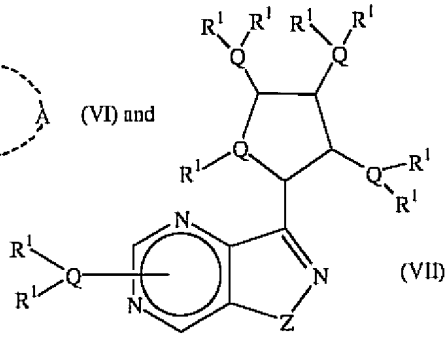
(IV),



(V),



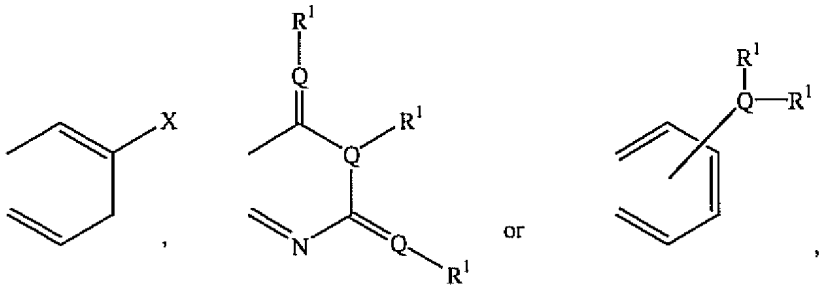
(VI) and



(VII)

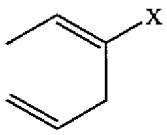
wherein Q is nitrogen or oxygen, wherein each occurrence of R^1 independently is H, CH_3, CH_2CH_3 or a nullity, wherein R^2 is C_1-C_{18} alleyl, C_2-C_{18} ether, C_2-C_{18} thioether, C_2-C_{18} secondary or tertiary amine,

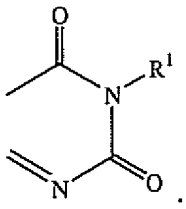
wherein A is



wherein R^3 is H, C_1–C_6 alkyl, or a heteroatom substituted C_1–C_6 alkyl where the heteroatom is oxygen, nitrogen, or sulfur, wherein R^4 is C_2–C_6 amide, or =N–R^5 where R^5 is C_7–C_{12} aryloxyl, C_1–C_6 hydronyl, carbonyl, carboxyl, or acyl, imidazyl, pyrazyl, thiazyl, or oxazyl, wherein X is H, F, Cl or Br, wherein Z is oxygen or sulfur.

4. (Currently Amended) The kit of claim [[1]] 3 wherein said gene transfer compound is bouvardin.

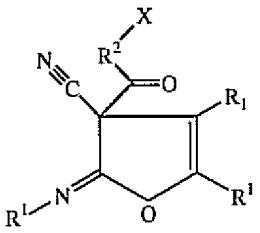
5. (Original) The kit of claim 3 wherein said gene transfer compound is that of structure I, wherein A is  , and Q is nitrogen in each occurrence.

6. (Original) The kit of claim 3 wherein said gene transfer compound is that of structure I, wherein A and each occurrence of Q together are  .

7. (Original) The kit of claim 3 wherein said gene transfer compound is that of structure II wherein Q is nitrogen and R^2 is C_1–C_{18} alkyl.

8. (Original) The kit of claim 7 wherein R^4 is $=N–R^5$.

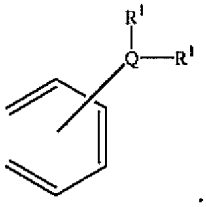
9. (Original) The kit of claim 7 wherein X is Cl or Br.

10. (Original) The kit of claim 3 wherein said gene transfer compound is that of structure III wherein Q in each occurrence together are 

11. (Original) The kit of claim 10 wherein said gene transfer compound is that of structure II or VII wherein each occurrence of R^1 is H, or CH_3.

12. (Original) The kit of claim 3 wherein said gene transfer compound is that of structure V wherein Q in each occurrence is oxygen.

13. (Original) The kit of claim 3 wherein said gene transfer compound is that of structure VI wherein Q in each occurrence is oxygen.

14. (Original) The kit of claim 13 wherein A is 

.

15. (Original) The kit of claim 3 wherein said gene transfer compound is that of structure VII wherein Q in each non-aromatic substituent occurrence is oxygen.

16. (Original) The kit of claim 15 wherein R^1 in each occurrence is H.

17. (Currently Amended) The kit of claim 3 wherein said compound is selected from the group consisting of: ~~NSC73609, NSC82090, NSC101492, NSC102821, NSC106191, NSC108613, NSC109325, NSC128720, NSC143491, NSC259968, NSC373989 and NSC675865~~

1-(5-chloro-2-hydroxyphenyl)-3-(3-pyridinyl)-1,3-propanedione;
N-(4-(bis(2-chloroethyl)amino)benzylidene)-1,3-thiazol-2-amine;
2-((4-(bis(2-chloroethyl)amino)benzylidene)amino)benzoic acid;
2-((4-(bis(2-chloroethyl)amino)-2-methylbenzylidene)amino)ethanol;
1-Tetradecylarsonic acid;
4-(4-(bis(2-chloroethyl)amino)phenyl)-N,N-dimethylbutanamide;
N^1-(2-fluoro-9-acridinyl)-N^3,N^3-dimethyl-1,3-propanediamine;

3-(bromoacetyl)-2-imino-4,5-dimethyl-2,3-dihydro-3-furancarbonitrile;
3,5,12-trihydroxy-3-(N-hydroxyethanimidoyl)-10-methoxy-6,11-dioxo-1,2,3,4,6,11-hexahydro-1-naphthacenyl 3-amino-2,3,6-trideoxyhexopyranoside;
bouvardin;
5-((3-(dimethylamino)propyl)amino)-3,10-dimethylpyrimido[4,5-b]quinoline-2,4(3H,10H)-dione; and
1-(7-aminoisothiazolo[4,5-d]pyrimidin-3-yl)-1,4-anhydropentitol.

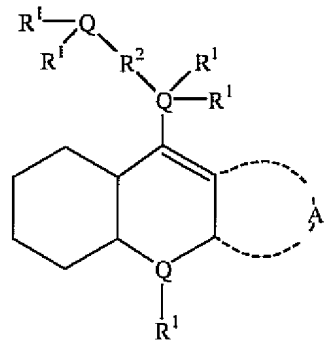
Claims 18-27 (Canceled)

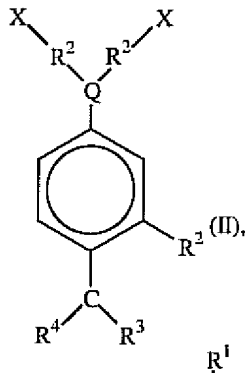
28. (Previously Presented) A process for activating gene transfer of a vector to a cell comprising the steps of:

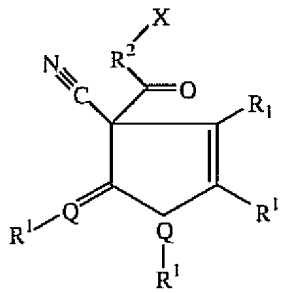
contacting a cell with a recombinant gene transfer vector; and

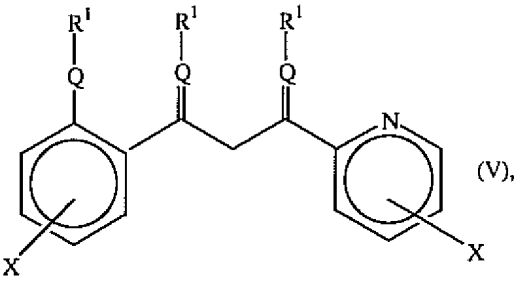
administering a gene transfer activating compound to the cell, such that transfer of the vector to the cell is activated;

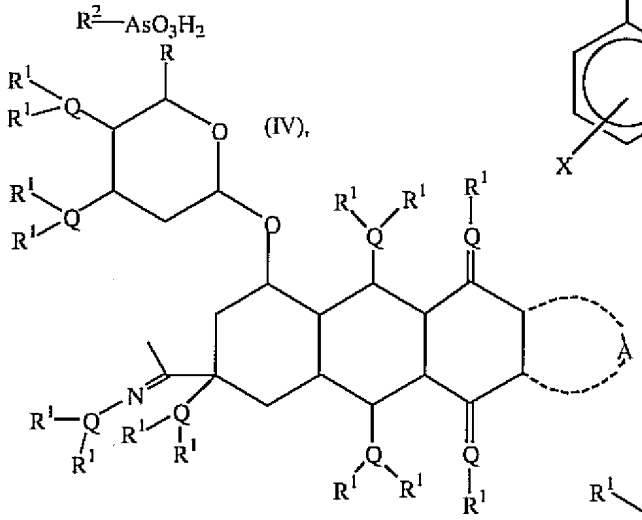
wherein the gene transfer activating compound is selected from the group consisting of:


(I),

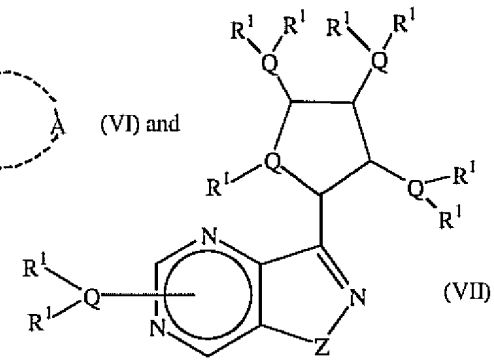

(II),


(III),


(V),

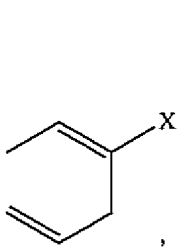

(IV),

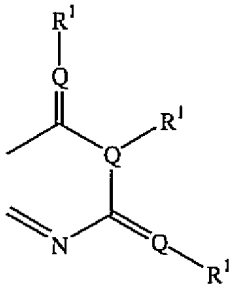
(VI) and

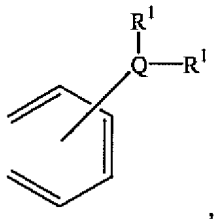

(VII)

wherein Q is nitrogen or oxygen, wherein each occurrence of R^1 independently is H, CH_3, CH_2CH_3 or a nullity, wherein R^2 is C_1-C_{18} alleyl, C_2-C_{18} ether, C_2-C_{18} thioether, C_2-C_{18} secondary or tertiary amine,

wherein A is


,


or


,

wherein R^3 is H, C_1-C_6 alkyl, or a heteroatom substituted C_1–C_6 alkyl where the heteroatom is oxygen, nitrogen, or sulfur, wherein R^4 is C_2–C_6 amide, or =N–R^5 where R^5 is C_7–C_{12} aryloxyl, C_1–C_6 hydronyl, carbonyl, carboxyl, or acyl, imidazyl, pyrazyl, thiazyl, or oxazyl, wherein X is H, F, Cl or Br, wherein Z is oxygen or sulfur.

29. (Currently Amended) A process for activating gene transfer of a vector to a cell comprising the steps of:

contacting a cell with a recombinant gene transfer vector; and

administering a gene transfer activating compound to the cell, such that transfer of the vector to the cell is activated;

wherein the gene transfer activating compound is selected from the group consisting of:

~~NSC73609, NSC82090, NSC101492, NSC102821, NSC106191, NSC108613, NSC109325, NSC128720, NSC143491, NSC259968, NSC373989 and NSC675865~~

1-(5-chloro-2-hydroxyphenyl)-3-(3-pyridinyl)-1,3-propanedione;
N-(4-(bis(2-chloroethyl)amino)benzylidene)-1,3-thiazol-2-amine;
2-((4-(bis(2-chloroethyl)amino)benzylidene)amino)benzoic acid;
2-((4-(bis(2-chloroethyl)amino)-2-methylbenzylidene)amino)ethanol;
1-Tetradecylarsonic acid;
4-(4-(bis(2-chloroethyl)amino)phenyl)-N,N-dimethylbutanamide;
N^1-(2-fluoro-9-acridinyl)-N^3,N^3-dimethyl-1,3-propanediamine;
3-(bromoacetyl)-2-imino-4,5-dimethyl-2,3-dihydro-3-furancarbonitrile;
3,5,12-trihydroxy-3-(N-hydroxyethanimidoyl)-10-methoxy-6,11-dioxo-1,2,3,4,6,11-hexahydro-1-naphthacenyl 3-amino-2,3,6-trideoxyhexopyranoside;
bouvardin;

5-((3-(dimethylamino)propyl)amino)-3,10-dimethylpyrimido[4,5-b]quinoline-2,4(3H,10H)-dione; and

1-(7-aminoisothiazolo[4,5-d]pyrimidin-3-yl)-1,4-anhydropentitol.

Claims 30-35 (Canceled).

36. (Currently Amended) A process for determining the efficacy of a putative gene transfer activating compound to activate gene transfer, comprising the steps of:

administering a test compound to a first cell;

contacting the first cell with a first amount of a recombinant vector;

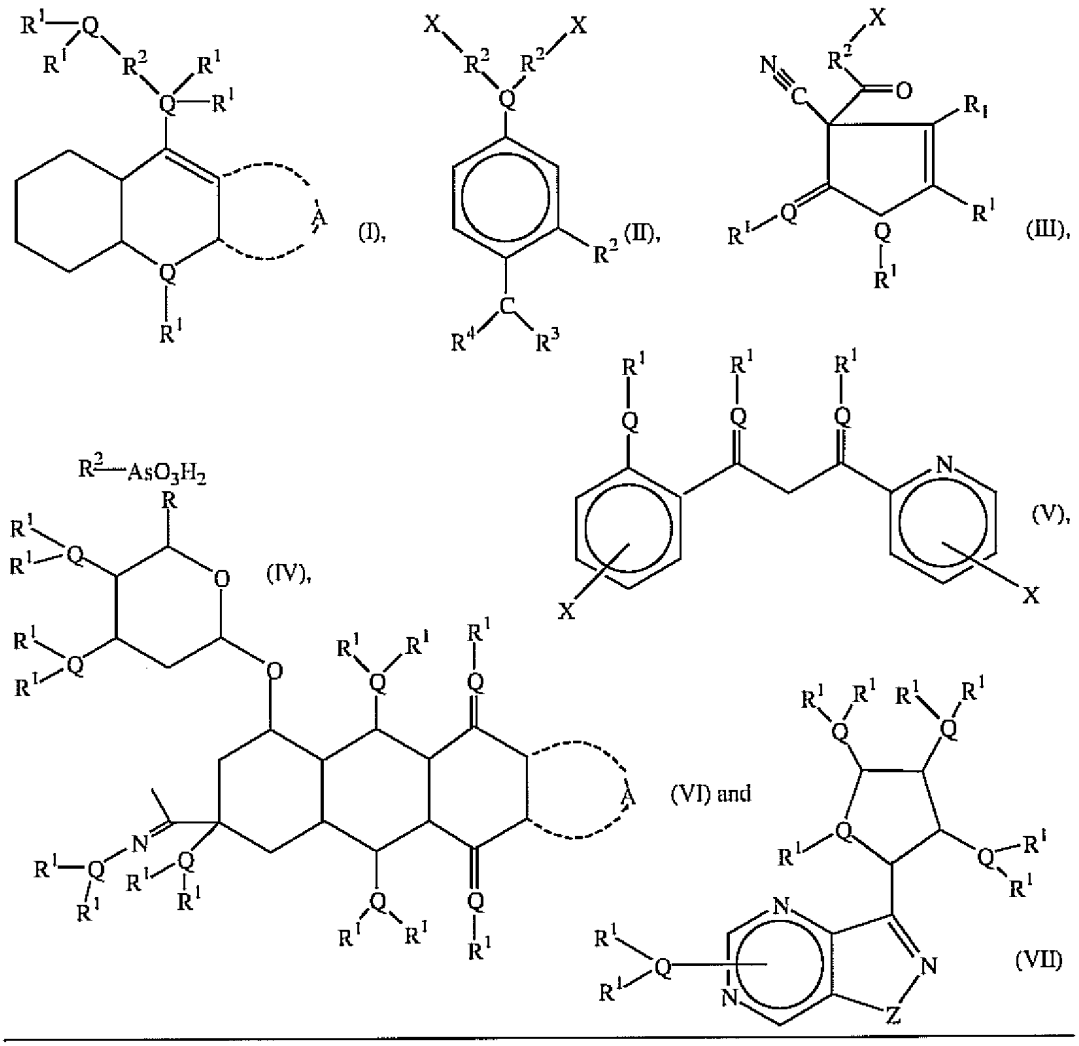
contacting a second cell with a second amount of the recombinant vector, the second amount of the recombinant vector substantially equal to the first amount;

measuring a gene transfer indicator in the first cell to obtain a test measurement;

measuring the gene transfer indicator in the second cell to obtain a control measurement; and

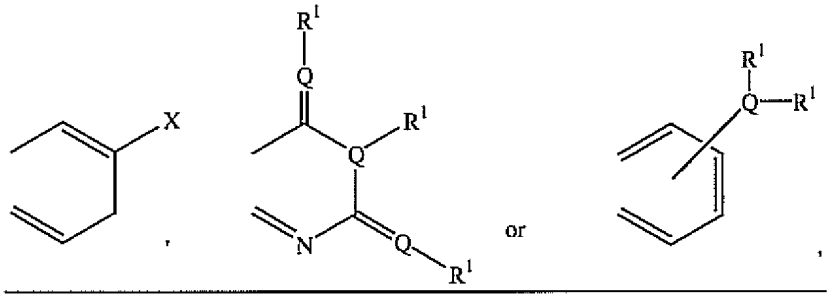
comparing the test measurement and the control measurement to determine the efficacy of the putative gene transfer activating compound to activate gene transfer; wherein

said gene transfer compound is selected from the group consisting of:



wherein Q is nitrogen or oxygen, wherein each occurrence of R^1 independently is H, CH_3, CH_2CH_3 or a nullity, wherein R^2 is C_1-C_{18} allyl, C_2-C_{18} ether, C_2-C_{18} thioether, C_2-C_{18} secondary or tertiary amine.

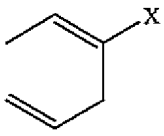
wherein A is



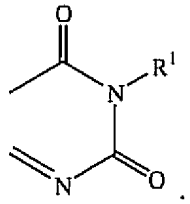
wherein R^3 is H, C_1–C_6 alkyl, or a heteroatom substituted C_1–C_6 alkyl where the heteroatom is oxygen, nitrogen, or sulfur, wherein R^4 is C_2–C_6 amide, or =N–R^5 where R^5 is C_7–C_{12} aryloxyl, C_1–C_6 hydronyl, carbonyl, carboxyl, or acyl, imidazyl, pyrazyl, thiazyl, or oxazyl, wherein X is H, F, Cl or Br, wherein Z is oxygen or sulfur.

37-39. (Cancelled).

40. (Currently Amended) The [[use]] process of claim [[37]] 36 wherein said gene transfer compound is bouvardin.

41. (Currently Amended) The [[use]] process of claim [[39]] 36 wherein said gene transfer compound is that of structure I, wherein A is  , and Q is nitrogen in each occurrence.

42. (Currently Amended) The [[use]] process of claim [[39]] 36 wherein said gene transfer compound is that of structure I, wherein A and each occurrence of Q together are

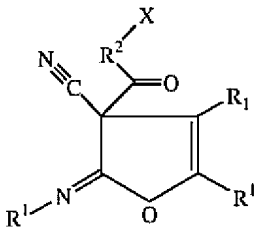


43. (Currently Amended) The [[use]] process of claim [[39]] 36 wherein said gene transfer compound is that of structure II wherein Q is nitrogen and R^2 is C_1–C_{18} alkyl.

44. (Currently Amended) The [[use]] process of claim [[39]] 36 wherein R^4 is =N–R^5.

45. (Currently Amended) The [[use]] process of claim [[39]] 36 wherein X is Cl or Br.

46. (Currently Amended) The [[use]] process of claim [[39]] 36 wherein said gene transfer compound is that of structure III wherein Q in each occurrence together are

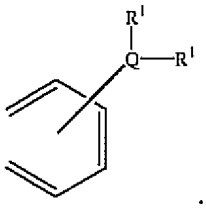


47. (Currently Amended) The [[use]] process of claim [[39]] 36 wherein said gene transfer compound is that of structure II or VII wherein each occurrence of R^1 is H, or CH_3.

48. (Currently Amended) The [[use]] process of claim [[39]] 36 wherein said gene transfer compound is that of structure V wherein Q in each occurrence is oxygen.

49. (Currently Amended) The [[use]] process of claim [[39]] 36 wherein said gene transfer compound is that of structure VI wherein Q in each occurrence is oxygen.

50. (Currently Amended) The [[use]] process of claim [[39]] 36 wherein A is



.

51. (Currently Amended) The [[use]] process of claim [[39]] 36 wherein said gene transfer compound is that of structure VII wherein Q in each non-aromatic substituent occurrence is oxygen.

52. (Currently Amended) The [[use]] process of claim [[39]] 36 wherein R^1 in each occurrence is H.

53. (Currently Amended) The [[use]] process of claim [[39]] 36 wherein said compound is selected from the group consisting of: ~~NSC73609, NSC82090, NSC101492, NSC102821, NSC106191, NSC108613, NSC109325, NSC128720, NSC143491, NSC259968, NSC373989 and NSC675865~~

1-(5-chloro-2-hydroxyphenyl)-3-(3-pyridinyl)-1,3-propanedione;
N-(4-(bis(2-chloroethyl)amino)benzylidene)-1,3-thiazol-2-amine;
2-((4-(bis(2-chloroethyl)amino)benzylidene)amino)benzoic acid;
2-((4-(bis(2-chloroethyl)amino)-2-methylbenzylidene)amino)ethanol;
1-Tetradecylarsonic acid;
4-(4-(bis(2-chloroethyl)amino)phenyl)-N,N-dimethylbutanamide;
N^1-(2-fluoro-9-acridinyl)-N^3,N^3-dimethyl-1,3-propanediamine;
3-(bromoacetyl)-2-imino-4,5-dimethyl-2,3-dihydro-3-furancarbonitrile;
3,5,12-trihydroxy-3-(N-hydroxyethanimidoyl)-10-methoxy-6,11-dioxo-1,2,3,4,6,11-hexahydro-1-naphthacenyl 3-amino-2,3,6-trideoxyhexopyranoside;
bouvardin;
5-((3-(dimethylamino)propyl)amino)-3,10-dimethylpyrimido[4,5-b]quinoline-2,4(3H,10H)-dione; and
1-(7-aminoisothiazolo[4,5-d]pyrimidin-3-yl)-1,4-anhydropentitol.

54. (Canceled)